

REMARKS**Introduction**

In response to the final Office Action dated August 9, 2007, Applicants have amended claims 1 and 5. Claim 3 has been cancelled. Claims 1, 2, 4 and 9 remain active. In view of the foregoing amendments and the following remarks, Applicants respectfully submit that all pending claims are in condition for allowance.

Entry of Amendment under 37 C.F.R. § 1.116

Applicant submits that by the present Amendment and Remarks, this application is placed in clear condition for immediate allowance. Moreover, the present Amendment does not generate any issue that would require substantive further consideration. The limitations of claim 3, previously dependent upon claim 1, have been incorporated into claim 1, and claim 3 cancelled. Dependent claim 5 has been rewritten into independent form including all of the limitations of claim 1. Entry of the present Amendment and Remarks, thus believed appropriate under 37 C.F.R. §1.116.

Claim Rejection Under 35 U.S.C. § 103

Claims 1-5 and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over De Poorter (U.S. Patent No. 5,568,863) in view of U.S. Pre-Grant Publication No. 2002/0039374 (hereinafter Onomura). Amended claim 1 recites, in part, "...a rated output power of the semiconductor laser device is 30 mW or more, and an atmospheric gas inside the package is a mixture of oxygen and nitrogen, with an oxygen content of 20% or more."

The Office Action acknowledges that De Poorter does not disclose an output of semiconductor laser device is 30mW or more. The Office Action relies on Onomura in an attempt to cure the deficiencies of De Poorter. The Office Action asserts that Onomura discloses that the output of the semiconductor laser device is 30mW or more.

Turning to the prior art, Onomura is *silent* regarding the oxygen content of the atmospheric gas.

According to the claimed subject matter per amended claim 1, the atmospheric gas inside the airtight-sealed package is 30 mW or more, and is a mixture of oxygen and nitrogen with an oxygen content of 20% or more. Thereby, as taught in the instant specification, at an output of 30 mW or more without oxygen, the mean time to failure (MTTF) is 100 hours or less (*see, e.g.*, pg. 6, line 21-pg. 7, line 15; and Figs. 3-4). In an embodiment of the present application, increasing the oxygen concentration to about 5% or more enhances the MTTF to 1,000 hours; increasing the oxygen concentration to about 10% or more enhances the MTTF to 2,000 hours; and furthermore, increasing the oxygen concentration to about 20% or more enhances the MTTF to 3,000 hours. However, Onomura does not disclose or suggest this, and apparently is unaware of the unexpected improvement in alleviating the deterioration of the semiconductor laser element made possible by the claimed semiconductor laser device. Onomura fails to disclose, “...an atmospheric gas inside the package is a mixture of oxygen and nitrogen, **with an oxygen content of 20% or more**,” as recited in amended claim 1.

Obviousness can be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge readily available to one of ordinary skill in the art. *In re Kotzab*, 217 F.3d 1365, 1370 55 USPQ2d 1313,

1317 (Fed. Cir. 2000); *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). There is no suggestion in De Poorter to modify the rated output power or oxygen content of the atmospheric gas, nor does common sense dictate the Examiner-asserted modifications. The Examiner has not provided any evidence that there would be any obvious benefit in making the asserted modification of De Poorter. *See KSR Int'l Co. v. Teleflex, Inc.*, 127 S.Ct. 1727, 82 USPQ2d 1385 (2007).

The only teaching of the rated output power and oxygen content of the atmospheric gas is found in Applicants' disclosure. However, the teaching or suggestion to make a claimed combination and the reasonable expectation of success must not be based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Neither De Poorter nor Onomura, individually or combined, teach or suggest, "...a rated output power of the semiconductor laser device is 30 mW or more, and an atmospheric gas inside the package is a mixture of oxygen and nitrogen, with an oxygen content of 20% or more," as recited in amended claim 1.

Amended, independent claim 5 recites, in part, "a rated output power of the semiconductor laser device is 30 mW or more, and an atmospheric gas inside the package is dry air."

In the instant case, the cited prior art is *silent* regarding the combination of the rated output power and the atmospheric gas inside the package is dry air; so that there is no basis for alleging obviousness thereof.

The Examiner has not pointed out any teaching or motivation in De Poorter or Onomura to suggest that the semiconductor laser device has a rated output power of 30 mW or more and that the atmospheric gas inside the package is dry air, as required by amended claim 5.

The requisite motivation to support the ultimate legal conclusion of obviousness under 35 U.S.C. § 103 is not an abstract concept, but must stem from the applied prior art as a whole and realistically impel one having ordinary skill in the art to modify a specific reference in a specific manner to arrive at a specifically claimed invention. *In re Deuel*, 51 F.3d 1552, 34 USPQ2d 1210 (Fed. Cir. 1995); *In re Newell*, 891 F.2d 899, 13 USPQ2d 1248 (Fed. Cir. 1989).

Accordingly, the Examiner is charged with the initial burden of identifying a source in the applied prior art for the requisite realistic motivation. *Smiths Industries Medical System v. Vital Signs, Inc.*, 183 F.3d 1347, 51 USPQ2d 1415 (Fed. Cir. 1999); *In re Mayne*, 104 F.3d 1339, 41 USPQ2d 1449 (Fed. Cir. 1997). The Examiner did not identify any motivation in De Poorter or Onomura to modify the semiconductor laser device so that it comprises an airtight-sealed package comprising an atmospheric gas of dry air and a rated output power of 30 mW or more, as required by amended claim 5.

Neither De Poorter nor Onomura, individually or combined, teach or suggest, “a rated output power of the semiconductor laser device is 30 mW or more, and an atmospheric gas inside the package is dry air,” as recited in independent claim 5.

The dependent claims are allowable for at least the same reasons as the respective independent claims from which they depend and further distinguish the claimed invention.

Conclusion

In view of the above amendments and remarks, Applicants submit that this application should be allowed and the case passed to issue. If there are any questions regarding this Amendment or the application in general, a telephone call to the undersigned would be appreciated to expedite the prosecution of the application.

10/531,391

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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